LUD5739-US SEQUENCE LISTING.txt

SEQUENCE LISTING

<110> VALMORI, Danila
AYYOUB, Maha
PINILLA, Clemencia

<120> Isolated, SSX-2 and SSX-2 Related Peptides Useful as HLA Binders
and CTL Epitopes, and Uses Thereof

<130> LUD 5739 PCT

<150> PCT/US2003/023306
<151> 2003-07-23

<150> 60/400,076
<151> 2002-07-31

<160> 116

<170> PatentIn version 3.2

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1   5

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<400> 3

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1   5

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1               5


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1               5


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1               5


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1   5

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1   5

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1   5

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1               5


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Ala Ala Ala Pro Lys Ile Phe Tyr Leu
1               5


<210>   15
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Ala Ala Ala Pro Lys Ile Ala Tyr Ala
1               5


<210>   16
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<213>   Homo sapiens

<400>   16

Lys Ala Ser Glu Lys Ile Phe Tyr Val
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1   5

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Lys Ala Ser Glu Lys Ile Phe Ala Val
1   5

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<213> Homo sapiens

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Tyr Met Asp Gly Thr Met Ser Gln Val
1   5

<210> 26
<211> 9
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<213> Homo sapiens

<400> 26

Met Leu Leu Ala Val Leu Tyr Cys Leu
1   5

<210> 27
<211> 10

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<213>  Homo sapiens

<400>  27

Glu Leu Ala Gly Ile Gly Ile Leu Thr Val
1               5                   10


<210>  28
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<212>  PRT
<213>  Homo sapiens

<400>  28

Ile Met Pro Lys Ala Gly Leu Leu Ile
1               5


<210>  29
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<212>  PRT
<213>  Homo sapiens

<400>  29

Phe Leu Trp Gly Pro Arg Ala Leu Val
1               5


<210>  30
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<212>  PRT
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<400>  30

Val Arg Ile Gly His Leu Tyr Ile Leu
1               5


<210>  31
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<212>  PRT
<213>  Homo sapiens

<400>  31

Tyr Leu Gln Leu Val Phe Gly Ile Glu Val
1               5                   10


<210>  32
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<212>  PRT
<213>  Homo sapiens

<400>  32

Phe Leu Trp Gly Pro Arg Ala Leu Val
1               5
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<210> 33
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<212> PRT
<213> Homo sapiens

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<222> 10
<223> Xaa may be Val or may be absent

<400> 33

Val Leu Pro Asp Val Phe Ile Arg Cys Xaa
1   5   10

<210> 34
<211> 9
<212> PRT
<213> Homo sapiens

<400> 34

Gly Leu Tyr Asp Gly Met Glu His Leu
1   5

<210> 35
<211> 10
<212> PRT
<213> Homo sapiens

<400> 35

Met Glu Val Asp Pro Ile Gly His Leu Tyr
1   5   10

<210> 36
<211> 9
<212> PRT
<213> Homo sapiens

<400> 36

Glu Val Asp Pro Ile Gly His Leu Tyr
1   5

<210> 37
<211> 9
<212> PRT
<213> Homo sapiens

<400> 37

Ser Leu Leu Met Trp Ile Thr Gln Cys
1   5

<210> 38
<211> 9

<212> PRT
<213> Homo sapiens

<400> 38

Ile Met Pro Lys Ala Gly Leu Leu Ile
1   5

<210> 39
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<400> 39

Glu Val Asp Pro Ile Gly His Leu Tyr
1   5

<210> 40
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<212> PRT
<213> Homo sapiens

<400> 40

Gly Val Tyr Asp Gly Arg Glu His Thr Val
1   5   10

<210> 41
<211> 9
<212> PRT
<213> Homo sapiens

<400> 41

Glu Ala Asp Pro Thr Gly His Ser Tyr
1   5

<210> 42
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<400> 42

Ser Glu Ile Trp Arg Asp Ile Asp Phe
1   5

<210> 43
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<400> 43

Leu Pro Ser Ser Ala Asp Val Glu Phe
1   5

<210> 44
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<400> 44

Ser Ala Tyr Gly Glu Pro Arg Lys Leu
1   5

<210> 45
<211> 8
<212> PRT
<213> Homo sapiens

<400> 45

Tyr Arg Pro Arg Pro Arg Arg Tyr
1   5

<210> 46
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<212> PRT
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<400> 46

Leu Ala Met Pro Phe Ala Thr Pro Met
1   5

<210> 47
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<212> PRT
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<400> 47

Ala Arg Gly Pro Glu Ser Arg Leu Leu
1   5

<210> 48
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<212> PRT
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<400> 48

Tyr Tyr Trp Pro Arg Pro Arg Arg Tyr
1   5

<210> 49
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<400> 49

Ala Ala Arg Ala Val Phe Leu Ala Leu
1   5

<210>   50
<211>   12
<212>   PRT
<213>   Homo sapiens

<400>   50

Thr Gln His Phe Val Gln Glu Asn Tyr Leu Glu Tyr
1   5   10

<210>   51
<211>   11
<212>   PRT
<213>   Homo sapiens

<400>   51

Ser Leu Leu Met Trp Ile Thr Gln Cys Phe Leu
1   5   10

<210>   52
<211>   14
<212>   PRT
<213>   Homo sapiens

<400>   52

Ala Glu Leu Val His Phe Leu Leu Leu Lys Tyr Arg Ala Arg
1   5   10

<210>   53
<211>   14
<212>   PRT
<213>   Homo sapiens

<400>   53

Leu Leu Lys Tyr Arg Ala Arg Glu Pro Val Thr Lys Ala Glu
1   5   10

<210>   54
<211>   14
<212>   PRT
<213>   Homo sapiens

<400>   54

Ala Glu Leu Val His Phe Leu Leu Leu Lys Tyr Arg Ala Arg
1   5   10

<210>   55
<211>   12
<212>   PRT
<213>   Homo sapiens

<400> 55

Glu Tyr Val Ile Lys Val Ser Ala Arg Val Arg Phe
1   5   10

<210>   56
<211>   14
<212>   PRT
<213>   Homo sapiens

<400>   56

Leu Leu Lys Tyr Arg Ala Arg Glu Pro Val Thr Lys Ala Glu
1   5   10

<210>   57
<211>   20
<212>   PRT
<213>   Homo sapiens

<400>   57

Pro Gly Val Leu Leu Lys Glu Phe Thr Val Ser Gly Asn Ile Leu Thr
1   5   10   15
Ile Arg Leu Thr
            20

<210>   58
<211>   18
<212>   PRT
<213>   Homo sapiens

<400>   58

Ala Ala Asp His Arg Gln Leu Gln Leu Ser Ile Ser Ser Cys Leu Gln
1   5   10   15
Gln Leu

<210>   59
<211>   9
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<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
        criteria in is satisfied: Lys at position 5; Phe at position 7; or
        Tyr at position 8

<400>   59

Ala Ala Ala Pro Lys Gln Phe Leu Ala
1   5

<210>   60
<211>   9
<212>   PRT

<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 60

Ala Ala Ser Pro Lys Ser Phe Thr Leu
1   5

<210> 61
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 61

Val Ser Ala Pro Lys Val Phe Gln Ala
1   5

<210> 62
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 62

Ile Ala Ser Pro Lys Ala Thr Tyr Val
1   5

<210> 63
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 63

Val Ser Ala Pro Lys Ile Phe Gln Ala
1   5

<210> 64
<211> 9

<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 64

Asn Ser Leu Pro Lys Val Ala Tyr Ala
1   5

<210> 65
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 65

Ala Ser Leu Pro Lys Val Ser Tyr Val
1   5

<210> 66
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 66

Lys Ala Glu Pro Lys Ala Pro Tyr Ala
1   5

<210> 67
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 67

His Ser Leu Pro Lys Val Ser Tyr Ala
1   5

<210> 68

<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
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         Tyr at position 8

<400>   68

Thr Ala Ser Pro Lys Glu Phe Tyr Ala
1   5

<210>   69
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
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         Tyr at position 8

<400>   69

Ala Ser Val Pro Lys Glu Leu Tyr Leu
1   5

<210>   70
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
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         Tyr at position 8

<400>   70

Ser Pro Asp Pro Lys Ile Cys Tyr Val
1   5

<210>   71
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
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         Tyr at position 8

<400>   71

Val Ala Glu Pro Lys Glu Ser Tyr Val
1   5

<210> 72
<211> 9
<212> PRT
<213> Artificial

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criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 72

Ile Ser Ala Pro Lys Ile Phe Arg Val
1   5

<210> 73
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 73

Ala Val Tyr Pro Lys Ile Phe Tyr Val
1   5

<210> 74
<211> 9
<212> PRT
<213> Artificial

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Tyr at position 8

<400> 74

Lys Ala Ser Glu Lys Ile Ile Tyr Val
1   5

<210> 75
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<212> PRT
<213> Artificial

<220>
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Tyr at position 8

<400> 75

Val Gln Asp Pro Lys Val Thr Tyr Leu
1   5

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<210>  76
<211>  9
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<220>
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       Tyr at position 8

<400>  76

Cys Pro Val Pro Lys Ile Phe Tyr Val
1               5


<210>  77
<211>  9
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<223>  Peptides with nine amino acids wherein two of the following
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       Tyr at position 8

<400>  77

Phe Ala Lys Pro Lys Ile Thr Tyr Val
1               5


<210>  78
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       Tyr at position 8

<400>  78

Gln Thr Pro Pro Lys Ile Asp Tyr Leu
1               5


<210>  79
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<212>  PRT
<213>  Artificial

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<223>  Peptides with nine amino acids wherein two of the following
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       Tyr at position 8

<400>  79

Leu Arg Ser Pro Lys Leu Phe Tyr Ala
1               5
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<210> 80
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<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
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Tyr at position 8

<400> 80

Lys Tyr Ser Glu Lys Ile Ser Tyr Val
1   5

<210> 81
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<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
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Tyr at position 8

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Glu Gln Lys Pro Lys Asp Phe Tyr Ala
1   5

<210> 82
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
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Tyr at position 8

<400> 82

Arg Thr Thr Pro Lys Asp Phe Tyr Val
1   5

<210> 83
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 83

Arg Ala Asp Pro Lys His Lys Tyr Leu

1   5

<210>   84
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<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

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Lys Arg Gly Trp Lys Thr Phe Tyr Ala
1   5

<210>   85
<211>   9
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<213>   Artificial

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<223>   Peptides with nine amino acids wherein two of the following
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         Tyr at position 8

<400>   85

Thr Ser Ser Trp Lys Lys Phe Tyr Leu
1   5

<210>   86
<211>   9
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<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
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         Tyr at position 8

<400>   86

Leu Ser Arg Pro Lys Arg Phe Tyr Leu
1   5

<210>   87
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   87

Asn Thr Tyr Pro Lys Gly Phe Tyr Cys
1   5

<210>   88
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   88

Ser Lys Leu Pro Lys Asp Phe Tyr Asp
1   5

<210>   89
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   89

Ala Leu Ser Pro Lys Glu Phe Tyr Glu
1   5

<210>   90
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   90

Lys Val Asp Pro Lys Pro Phe Tyr Glu
1   5

<210>   91
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   91

Val Gly Ser Glu Lys Leu Phe Tyr Glu
1   5

<210>   92
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
        criteria in is satisfied: Lys at position 5; Phe at position 7; or
        Tyr at position 8

<400>   92

Leu Met Thr Pro Lys Gln Met Tyr Glu
1   5

<210>   93
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<220>
<223>   Peptides with nine amino acids wherein two of the following
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        Tyr at position 8

<400>   93

Lys Asn Lys Pro Lys Met Asn Tyr Glu
1   5

<210>   94
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<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
        criteria in is satisfied: Lys at position 5; Phe at position 7; or
        Tyr at position 8

<400>   94

Val Arg Gly Pro Lys Tyr Phe Tyr Gly
1   5

<210>   95
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<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
        criteria in is satisfied: Lys at position 5; Phe at position 7; or
        Tyr at position 8

<400> 95

Ala Ala Thr Pro Lys Ile Phe Asn Gly
1   5

<210> 96
<211> 9
<212> PRT
<213> Artificial

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<223> Peptides with nine amino acids wherein two of the following
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      Tyr at position 8

<400> 96

Trp Gly Glu Pro Lys Thr Trp Tyr Gly
1   5

<210> 97
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 97

Val Gly Leu Lys Lys Ser Phe Tyr Gly
1   5

<210> 98
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 98

Leu Ala Asn Pro Lys Glu Phe Tyr His
1   5

<210> 99
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
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      Tyr at position 8

<400> 99

Ala Ser Ser Pro Lys Val Ala Tyr His
1   5

<210> 100
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 100

Gln Tyr Thr Pro Lys Ala Lys Tyr His
1   5

<210> 101
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 101

Gln Thr Gly Pro Lys Ser Thr Tyr Ile
1   5

<210> 102
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 102

Ser Met Asp Pro Lys Arg Phe Tyr Lys
1   5

<210> 103
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or

Tyr at position 8

<400>   103

Gly Ile Thr Pro Lys Gly Phe Tyr Lys
1   5

<210>   104
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   104

Arg Leu Val Pro Lys Leu Phe Tyr Lys
1   5

<210>   105
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   105

Pro Ser Ser Pro Lys Val Thr Tyr Lys
1   5

<210>   106
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   106

Glu Asp Glu Tyr Lys Ala Phe Tyr Lys
1   5

<210>   107
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following

criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 107

Thr Leu Gly Pro Lys Ile Thr Tyr Gln
1   5

<210> 108
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 108

Glu Lys Glu Gly Lys Pro Phe Tyr Gln
1   5

<210> 109
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 109

Val Ala Gln Pro Lys Glu Val Tyr Arg
1   5

<210> 110
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
      criteria in is satisfied: Lys at position 5; Phe at position 7; or
      Tyr at position 8

<400> 110

Glu Ala Gly Pro Pro Ala Phe Tyr Arg
1   5

<210> 111
<211> 9
<212> PRT
<213> Artificial

<220>

<223> Peptides with nine amino acids wherein two of the following
criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 111

Gln Ile Asn Pro Lys Cys Phe Tyr Thr
1   5

<210> 112
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 112

Asp Ile Pro Pro Lys Phe Phe Tyr Thr
1   5

<210> 113
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 113

Asp Asp Asn Pro Lys Thr Phe Tyr Trp
1   5

<210> 114
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following
criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8

<400> 114
Asp Ala Val Pro Lys Ile Glu Tyr Tyr
1   5

<210> 115
<211> 9
<212> PRT
<213> Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   115

Val Ile His Glu Lys Gly Phe Tyr Tyr
1   5

<210>   116
<211>   9
<212>   PRT
<213>   Artificial

<220>
<223>   Peptides with nine amino acids wherein two of the following
         criteria in is satisfied: Lys at position 5; Phe at position 7; or
         Tyr at position 8

<400>   116

Gly Ile Leu Gly Phe Val Phe Thr Leu
1   5